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15.05.91 Bulletin 91/20(72) Inventor: **Perloff, Ronald S.**
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Los Gatos, CA 95030(US)(88) Date of deferred publication of the search report:
15.04.92 Bulletin 92/16(71) Applicant: **NATIONAL SEMICONDUCTOR CORPORATION**
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Rethelstrasse 123
W-4000 Düsseldorf 1(DE)(54) **Pattern injector.**

(57) A pattern injector for testing stations in a data communications network and the physical link between them. The pattern injector replaces normal characters in a normal, unmodified stream with injection characters. The pattern injector includes a multiplexor that receives both a current normal character and the injection character as inputs and provides the injection character as its output upon receipt of a select signal. Selection logic responsive to mode selection inputs selectively provides the select signal to the multiplexor in response to the various prog-

rammable pattern injector modes. In the Off mode, no replacement of normal characters occurs. In the One-Shot mode, the n^{th} normal character after detection of a preselected normal character in the unmodified stream is replaced with the injection character. In the Periodic mode, every n^{th} normal character in the unmodified stream is replaced with the injection character. In the Continuous mode, all normal characters in the unmodified stream are replaced with the injection character.

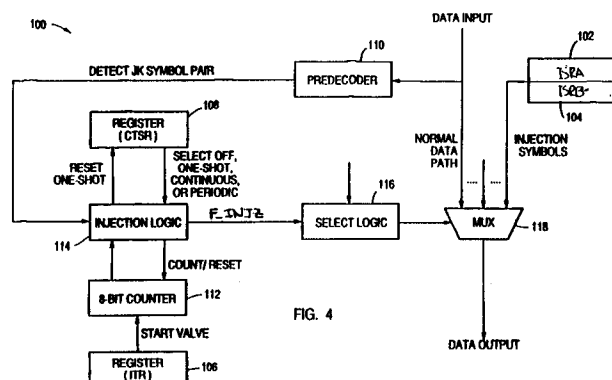


FIG. 4

EP 0 427 066 A3



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EUROPEAN SEARCH REPORT

Application Number

EP 90 12 0561

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	EP-A-0 319 998 (FUJITSU LIMITED) * column 5, line 49 - column 6, line 46 * * column 11, line 16 - column 13, line 20 **	1,3,5,8,14	H 04 L 12/26 H 04 L 12/42 H 04 L 1/24 H 04 L 25/49
Y		2,9	
A		4,6,7,10, 11,15-19	

X	US-A-4 823 344 (A. YONEHARA) * column 2, line 59 - column 3, line 16 **	1,3,5,8,14	

Y	US-A-2 968 694 (G. SCHWENDER ET AL.) * column 1, line 20 - line 43 * * column 2, line 28 - line 36 **	2,9	

A	EP-A-0 306 585 (INTERNATIONAL BUSINESS MA- CHINES) * abstract **	-	

A	EP-A-0 305 036 (HEWLETT-PACKARD COMPANY) * abstract; claim 1 **	-	

The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H 04 L
Place of search			Examiner
The Hague			STAESSEN B.F.
Date of completion of search			
17 February 92			
CATEGORY OF CITED DOCUMENTS			
X: particularly relevant if taken alone		E: earlier patent document, but published on, or after the filing date	
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P: intermediate document		&: member of the same patent family, corresponding document	
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